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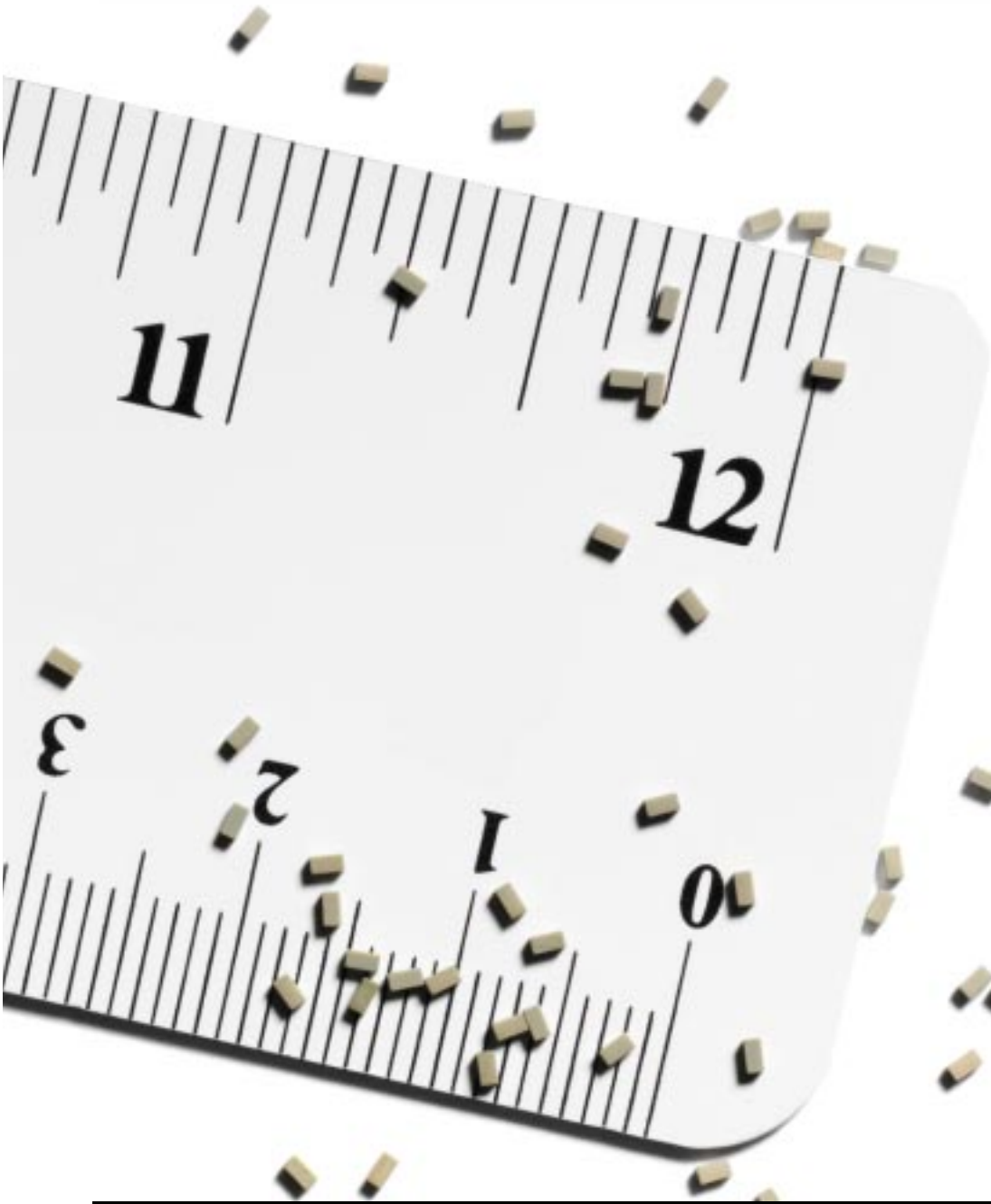

AVX: Success Measured by the Millions

Discovering Beidler Forest | Richard M. Jefferies: A Powerful Man with a Powerful Idea | Essay Contest Winner

Environment — One of the Best Teachers We'll Ever Have

Studying nature ensures our appreciation of its magnificence, complexity, fragility and resilience. Even our simplest observations about nature reinforce our awe. The problem is, many of us—especially those who work indoors—often feel ourselves inundated in busyness. We barely have time to glance up. We miss many vital lessons.

My hope is that our young people can teach us to see the world through new eyes. If we create opportunities for them to develop a greater appreciation for nature, tomorrow's leaders should also develop their commitment for protecting and improving the world.

This is the premise upon which Santee Cooper has sponsored the Statewide Environmental Essay Contest for seventh graders for the past 11 years. Each year, these students respond to the challenge of addressing a particular environmental subject, conducting research and writing their essays in a style that communicates effectively and creatively. This year was no exception.

"How Environmentally Friendly Is Your Home" was the topic of the 2002/2003 school year's competition and more than 3000 seventh graders responded with their unique perspectives addressing this subject. The first-place winner was Megan McDuffie, a student at Myrtle Beach Middle School.

In her essay, Megan looks at energy conservation through the eyes of her pets, two "smarty cats" who lead the reader room to room, pointing out various environmentally related facts and features of the house. From her cats' points of view, Megan was able to compare the world inside her home to the environment as a whole.

T. Graham Edwards
Chairman — Board of Directors

Megan's winning essay appears in this issue of PowerSource. As you read it, you will appreciate the insight and enthusiasm of this young writer and the importance of her perspective. Her writing reflects how the environment is something she respects and protects. That's a model for all of us to follow.

Santee Cooper POWER

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email: jlstaffo@santeecooper.com

Ben Cole—Senior Vice President, Community Development and Corporate Communications
Jerry Stafford—Editor
Willard Strong—Senior Writer/Media Relations Specialist
Jim Huff—Writer/Photo Editor/Photographer
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Marc Cardwell, CNSG—Design

***Cover**: A close look at just a scattering of the millions of ceramic capacitors produced daily by AVX Corp. of Myrtle Beach. These electronic devices are integral components in the expanding worldwide digital technology.*

Printed on recycled paper.

AVX: Digital Technology Helps Diversify Grand Strand Economy

Like so many products, they're likely in things you own and operate every day—and you don't even know it.

Cell phones, laptop computers and the new satellite radio systems optional in many cars are but a few examples. They illustrate how a tiny electronic component found in these devices makes our increasingly online, wired-up digital world work smoothly.

That component is the capacitor, around even in the age of vacuum tubes. This was long before transistor radios and the term "solid state" defined the next generation of electronics in the early 1950s.

Times have once again changed. Ceramic capacitors, which may contain from two to several hundred conducting plates separated from one another by an insulating material and used to store an electric charge, have downsized. Big time.

***Left**: Production worker Mary Armstrong uses a T-square to align stack trays transporting millions of capacitors per hour through one of the 65-foot tunnel kilns at AVX.*
***Above**: Johnny Sarvis, divisional vice president.*

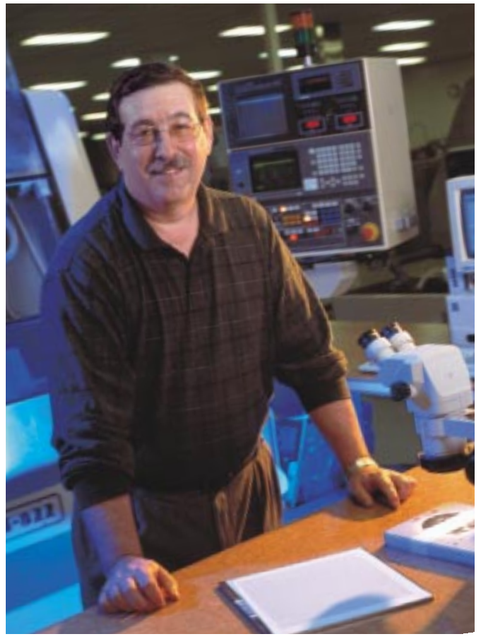
And one of the world's leading manufacturers of capacitors is AVX Corp., with corporate headquarters located in Myrtle Beach. This multinational firm has a Grand Strand ancestry going all the way back to 1948.

At that time, the firm was called Electrical Reactance Corp. and later became part of Aerovox Corp.'s Hi-Q Division.

In 1972, AVX Ceramics was born, and back then, the home office was Great Neck, N.Y. But even then, three-quarters of the firm's workings emanated from Myrtle Beach. Since 1990, AVX has been a part of Kyocera Corp., a Japanese firm based in Kyoto. Throughout its metamorphosis, AVX has excelled. Through continued efforts focusing on process controls and quality improvements, AVX-Myrtle Beach is one of several AVX global facilities to achieve QS9000 quality status. It's paid off.

Several years ago, a survey by Electronics Business News and Electronic Engineering Times named AVX "the industry leader," topping other competitors by a more than two-to-one margin. It isn't hard to find an AVX component, some smaller than the period at the end of this sentence, reliably doing its job.

"Just about anything in an electronic circuit has a capacitor," says Johnny Sarvis, AVX's divisional vice president."A capacitor is like a battery. It absorbs energy and releases it very predictably. Because of this, capacitors have a wide range of applications in circuit control and protection.



Ray Spitz, vice president of human resources.

Within the main campus at Myrtle Beach there are several operations: raw material manufacturing, ceramic capacitor manufacturing and a high-tech research center. The most recent addition to the campus was built in 1998 and houses new high-tech products. There's also

a Conway manufacturing facility, and all total, AVX occupies 600,000-square feet of space in Horry County. They have 1,500 people on the payroll, making them the county's largest private employer.

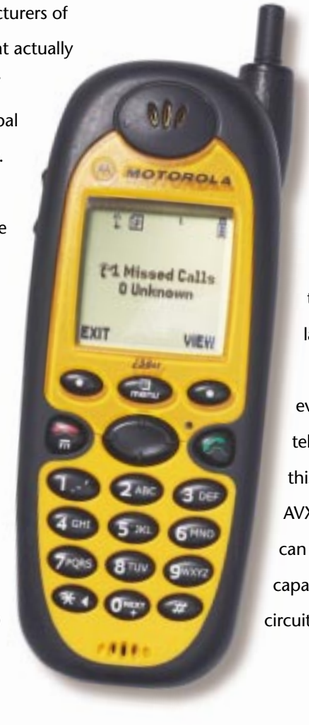
Several years ago, a survey by Electronics Business News and Electronic Engineering Times named AVX "the industry leader."

AVX is unique because "we are only one of two manufacturers of our type in the world that actually make our own material," Sarvis says. "We're a global manufacturing company. Our strategy is to locate our manufacturing where our markets are strong."

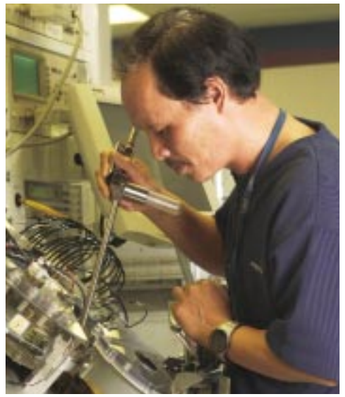
AVX aptly illustrates the term "global economy." The firm has facilities in 13 countries including Central and South America, China, Taiwan, Malaysia, El Salvador, the Czech Republic and the United Kingdom. Nearly 13,000 people are employed worldwide. Last year's sales totaled $1.13 billion.

As the global economy has evolved, so has the firm's evolution in meeting market demand.

"I came in 1973," Sarvis says. "And I don't think anything we made then is being made here today. Back then, our major product was a disk capacitor, mainly used in TVs. In the early 1970s we transitioned into multi-layer capacitors."



It seems as if everyone has a cellular telephone these days. And this has been a boon for AVX. A typical cell phone can have hundreds of AVX capacitors imbedded in its circuitry. Big customers are



Technician Dzung Do verifies setup test parameters for quality control check.

Motorola and Nokia. The same goes for the personal computer market with Dell, IBM and Apple spurring a voracious appetite for the online revolution.

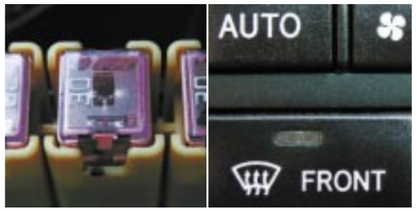
Demand for cell phones and computers peaked two years ago before Sept. 11. Their market has declined somewhat, but, if anything, AVX has been able to adapt, move on and ultimately prevail in the competitive marketplace.

"We always bring something new along," says Sarvis. "We're always looking at new products, and we'll continue doing that."

For example, the automotive industry is growing at about 10 percent a year. Anti-lock brakes require AVX components. Electronically controlled engine modules and tire-pressure sensors are more examples. The military also depends on AVX products as building blocks for bomb-guidance components and Global Positioning Systems.

And then there's the medical field. AVX components can be found in hearing aids that allow children as young as 18 months to live fuller lives through advances in implanted technology.

In an area known far and wide for nice beaches and fun in the sun, AVX shows that a truly high-tech manufacturing firm can flourish within earshot of waves crashing on the surf. Economic development leaders would love to have a dozen AVXs providing high-paying jobs.



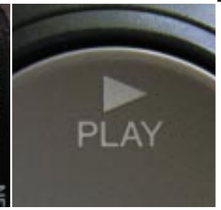
So what's the key to making it at Myrtle Beach?

"We know we're unique here," says Ray Spitz, vice president of human resources. "We don't have a single customer in Horry County, and we sell more internationally than we do in the US."

"Finding highly skilled engineers and scientists has been relatively easy," Spitz added. "Myrtle Beach is a great drawing card, and we recruit many of these employees from outside of Horry County and South Carolina."

AVX also operates a 24 hours a day, seven days a week manufacturing operation, and Spitz admits it can be a challenge to find employees to work weekends and nights. "We draw our work force from a 50-mile radius. Within this area, we offer good pay, a full benefit package and year-round work," says Spitz. AVX works with local colleges and Horry-Georgetown Technical College to deliver training that helps its employees meet ever tougher workplace challenges and demands. All of these factors have helped keep turnover low and employee productivity high.

AVX has always been active in the community, providing college scholarships and supporting local charities such as the United Way, the American Heart Association, March of Dimes and the Academic Olympics.



As AVX does battle with its perennial competitors, such as Japan's Murata, TDK and the U.S.'s Kemet, the folks in Myrtle Beach are always looking to maintain their competitive edge. Cutting costs is a significant factor to remaining competitive, particularly during an economic slowdown.

"Power is one of our big costs here," says Sarvis. "We're happy with Santee Cooper as our power supplier, and it's critical. We use kilns that run at over 1,000 degrees Fahrenheit. If the power goes off during certain operations, we lose everything. We can have 10 to 12 million pieces (electronic components) in kilns at one time. Continuous power must be maintained to prevent the loss of this product."

Sarvis and Spitz both agree that to keep manufacturing in the U.S., a more focused domestic partnership between suppliers and manufacturers needs to be formed and continually fostered.

"We all need to work together to retain the type of jobs we have here in Myrtle Beach," Spitz says. "Offshore, power is not as reliable, but labor is cheaper. So, we must keep our costs down to remain here over the long-term. That is what we want to do."

***Above**: Production worker Tracey Moore uses a microscope to closely inspect ceramic plates, each containing 21,146 individual capacitors.*
***Top**: Kiln operator Libby Gibson unloads fired capacitors from the kiln.*

If any company is up to this challenge, it's AVX. Sarvis says AVX's winning hand has always been from the drawing board to the shipping container—in record time.

"We're happy with Santee Cooper as our power supplier, and it's critical."
—Johnny Sarvis, AVX divisional vice president.

One of the major strengths of AVX is that the Research and Development Group is located near manufacturing. The transition from development to manufacturing is much faster.

There's room to expand near the bright lights of Ocean Boulevard. AVX has about 70 acres and room to grow. Growth and leadership in the global electronics industry have been a constant goal and a way of life at AVX Corporation.

So the next time you press "send" on your cell phone or your "check engine light" reports something's amiss with your car's engine, you might think of AVX Corp. and the role they play in the lives of millions of people every minute of the day.

Francis Beidler Forest: Exploring Rich History of Famed Forest

There are many special natural areas in South Carolina, richly deserving of the protected status they enjoy—protection for the benefit of future generations.

You won't find a more unique setting than the Francis Beidler (pronounced BIDE-lur) Forest, located in Dorchester County, off Interstate 26 and about 15 miles northwest of the bustling bedroom community of Summerville. But what makes the 12,000 acres comprising Beidler so significant? It features the largest stand of old growth cypress and tupelo swamp remaining in the world. At 1,800 acres, this old growth stand is one of only two such tracts remaining in South Carolina.

"The trees are striking, majestic monuments to nature's craft."

"Just about all of South Carolina's forests have been logged," says Mike Dawson, center director at Beidler Forest. "What we have left, as far as virgin forests go in our state, are only parts of Beidler and parts of the Congaree Swamp National Monument near Columbia. Obviously, these are very unique places, and we are fortunate things worked out to save Beidler. It could have easily been lost forever."

***Left**: Reflections of the largest stand of old growth cypress and tupelo swamp remaining in the world.*
***Above**: Mike Dawson, Beidler Forest Center director.*

Who Was Francis Beidler?

The late 19th and early 20th century produced "barons" in the United States. These were men who became famously and, in some cases, notoriously rich from the Industrial Revolution. There were railroad barons, oil barons and iron and steel barons. Many view these capitalists as exploiters of cheap labor and the nation's natural resources—thus the term "robber baron."

Francis Beidler was a lumber baron. Back in 1890, he bought land in this area that had been known since Colonial times as Four Holes Swamp. The goal, of course, was to log all of the commercially valuable cypress trees found there.

However, the wealthy lumber baron began to change his view about indiscriminate lumbering.

When Theodore Roosevelt became president in 1901, he ushered in a new era of conservation awareness in America. Roosevelt's image was one of a rugged outdoorsman. Beidler embraced Roosevelt's commitment to saving precious spots, culminating in such endeavors as Yellowstone National Park, an area that enthralled Beidler when he visited in 1875 as a 21-year-old.

Beidler also visited Europe in 1907 to study forestry management practices, ideas he applied to his holdings in South Carolina.

Before he died in 1924, Francis Beidler became a champion of conservation, realizing that when men and saws completed their work at places such as Four Holes Swamp, there would be nothing left but the memories of 1,500-year-old cypress trees.

In the 1960s, Beidler's heirs executed an arrangement that allowed the National Audubon Society and the Nature Conservancy to acquire the Beidler Forest. Both organizations are co-owners of the property, but Audubon manages and operates the facility.

The Francis Beidler Forest Experience

By the mid-1970s Audubon constructed a one-story visitor's center that greets 10,000 to 12,000 visitors annually. There is also a 1.75-mile long boardwalk, complete with nine rest stops.

As traffic zooms east and west on Interstate 26 near Harleyville, motorists are generally unaware that they are traversing, within almost a stone's throw, one of the nation's most pristine and sensitive environmental sanctuaries. Hidden from view and the direct flow of daily traffic, Beidler's definitely off the beaten path.

"You really have to want to come to Beidler," Dawson says. "But I think that's a big part of the attraction. Another aspect is that we have an educational mission here. The general public doesn't have a positive image of a swamp. But once we get them here, they love it."

Only in the last half-century or so has science really begun to understand how vital swamps and wetlands are to our ecosystem. Dawson says the battle cry of "drain the swamp" has been replaced by calls for preserving and protecting these areas.

"Swamps aren't and have never been wastelands," says Dawson. "Swamps provide water and air filtration, flood control, wildlife habitat, groundwater recharging and recreational opportunities." Strolling along the boardwalk, it's remarkably insect-free and cool, even for early summers. There's no smell. The trees are striking, majestic monuments to nature's craft.

But Beidler's not just about big old trees. It's a haven for animals and plants.

"Just counting vertebrates, we have over 300 species here in the forest," says Dawson. "We have 50 species of reptiles, 44 species of mammals and about 40 species each of fish and amphibians. That's in addition to 140 species of birds." Bird counts are part of the Beidler routine.

A highlight of a boardwalk excursion is seeing Goodson Lake. It's a three-acre body of water, part of the 45,000 acres comprising the Four Holes Swamp ecosystem. Alligators and snakes abound, and largemouth bass, bream, gar and catfish are swimming about as they have for centuries.

In addition to man's intervention, natural occurrences pose a threat to the forest's well-being. Hurricane Hugo did a lot of damage to Beidler during the night of Sept. 21 and the early morning hours of September 22, 1989.

"We lost 80 percent of the canopy of our upland mixed hardwood trees," Dawson says. "But it provided the opportunity for two things. One, it allowed us to determine how the forest was hurt by the storm. Two, it allowed us to find out how a forest comes back over time after a natural event like Hugo."

Beidler is a living nature center, playing host to between 3,500 and 4,000 school children each year. Besides Dawson, there are five full-time employees, two part-

timers, five seasonal naturalists and a half-dozen or so volunteers.

It's not always a 9 to 5 job. Among the more popular programs offered at Beidler are the monthly "Nightwalks." They're done on the boardwalk trail, and a naturalist is your tour guide.

"We practically guarantee that you'll at least hear an owl," says Dawson. "And we have bats, most notably the eastern big-eared bat, a species being considered for listing as endangered."

The dates of the remaining Nightwalks are Aug. 9 and 30, Sept. 6, Oct. 4, Nov. 1, 8 and 29, and Dec. 6. Reservations are required.

Other Beidler programs include naturalist-guided boardwalk tours for groups of 10 or more. Guided canoe trips and slide shows are also available. There's a gift shop with many unique Audubon items, including framed prints. For more information, contact the forest at (843) 462-2150 or at their Web site: www.beidlerforest.com.

Researcher spots way to protect turtle population

Groundbreaking research on spotted turtles is one example of how the Francis Beidler Forest's treasure trove of biological diversity can advance science—and possibly halt the decline of a species in trouble. That species is *Clemmys guttata*, commonly known as the spotted turtle.

Santee Cooper sponsored research performed by Jacqueline Litzgus, a doctoral candidate at the University of South Carolina. This Canadian came South in search of these attractive reptiles with the distinctive marking on their shells.

"I do miss the snow," Litzgus says of her native northern clime. "And I can't believe I've been living in a swamp in South Carolina! But, I'm passionate about the spotted turtle, and I believe this work is important."

Litzgus has wrapped up a three-year study and will put that work toward her doctorate. She first visited Beidler in March 1999 and soon found her first spotted turtle under a Santee Cooper transmission line that runs through the property. Confident that the project would work, Litzgus moved to Columbia in August 1999 after getting the funding go-ahead and an OK from her Ph.D. advisor.

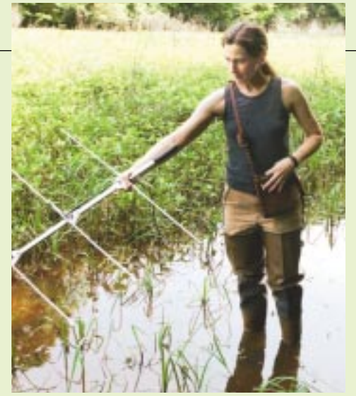
Wiring Turtles for Research

What Litzgus did with her funding was purchase tiny radio transmitters that she attached to spotted turtles found at Beidler.

Her research began in February 2000, and it officially concluded this past February. By the summer of 2001, she had placed 15 transmitters on turtles. Eleven were females and four were males. She identified about 40 of the turtles, which are having a tough time these days.

"It's the same story with the spotted turtle as with many other animals," says Litzgus. "They are suffering from a loss of habitat. But these turtles are also in demand as pets. Spotted turtles have been in demand for the pet trade for a while now. That's really contributing to their decline. What I'm trying to do is find out about their reproductive habits so we can better manage the species."

***Above**: Litzgus holds one of the tiny radio transmitters that she attached to the backs of spotted turtles.*



Searching for a radio signal from a "wired turtle," Jacqueline Litzgus positions her antenna in the area under Santee Cooper's transmission line, where she first spotted one in 1999.

The spotted turtle isn't a federally threatened or endangered species—yet. Litzgus says it's "listed as a species in need of management in South Carolina."

Her interest in spotted turtles began 12 years ago, in Ontario, Canada, when she was a biology teacher at a canoe camp. As at Beidler, she placed radio transmitters on females and began looking for nesting sites.

In a find that grabbed the attention of scientists, she learned that spotted turtles would lay eggs in small cracks on rock outcrops. Here in the South, she's noticed South Carolina spotted turtles behave differently than their Canadian cousins.

"Canadian turtles are generally larger," says Litzgus. "They can hibernate up to eight months and a female may not nest in a short summer. Here at Beidler, I've found they hibernate for as little as one month, maybe two, laying two or three clutches of eggs per year." A "clutch" is a nest of eggs.

"These are shallow-water turtles that like seasonally flooded wetlands," Litzgus says. "They eat insects and crayfish. Unlike common slider turtles, they only like to bask in the sun for about a month or two, from February to early May, the turtles' most active time."

During the high point of her research, Litzgus came to Beidler from Columbia two or three times a week. During the nesting season, she lived in a cabin onsite and tromped around the swamp and upland areas in knee-high rubber boots, carrying a radio antenna to pick up signals from the turtles. Extensive record keeping is a major part of the research.

"I'd like to continue studying spotted turtles," she says. "It's important work because the condition of these animals is a good indicator of a healthy ecosystem. If you have good healthy turtles, you have good vital signs for the overall environment. I appreciate Santee Cooper helping me pursue my passion."

Clemmys guttata, *commonly known as the spotted turtle.*

"How Environmentally Friendly is Your Home?"

Issue Addressed by Seventh Graders Statewide

She wanted to share a unique perspective of the environment that envelopes her everyday life. What better way than through the eyes of Miko and Libby, her two closest feline friends. From more than 3,000 seventh graders representing almost 90 schools, Megan McDuffie, a student at Myrtle Beach Middle School, was judged the overall statewide winner in Santee Cooper's 13th annual Environmental Essay Contest.

Early one morning, two very curious cats woke up to the sound of tasty birds chirping outside their window. The two cats were Miko and Libby. Miko is the older, more intelligent cat. Libby is the baby that is always investigating the world around her. Miko yawned, and Libby stretched. They both felt very refreshed, but very tired. They walked across their owner Ernie, and jumped off the bed. Miko stopped walking and turned to Libby. Miko said, "Lets go downstairs and get something to eat. I could eat a horse." Libby agreed, and the two cats scampered downstairs to the kitchen.

***Left**: Statewide Environmental Essay Contest Winner Megan McDuffie.*

***Above**: 2003 Essay contest winners.*

***Top row left to right**: James Ward, Williamsburg Academy; Dalton Harper, Chesterfield Middle School; Gregory Cook, Andrew Jackson Middle School; and Patti Sheridan, Lexington Middle School.*

***Middle Row**: John-Smith Buchan, McCants Middle School; Ashley Gaffney, Woodruff Middle School; and Anna Meeks, Myrtle Beach Middle School.*

***Front Row**: Michael Leverette, Hughes Academy; Grace Streater, Myrtle Beach Middle School; Megan McDuffie, Myrtle Beach Middle School; and Kristen Peters, Williamsburg Academy. Absent from photo are Meredith Golay, Lexington Middle School; and Kara Fant, McCants Middle School.*

When they entered the kitchen, Libby noticed her owner Lynn was using a microwave to heat up her coffee. Libby then thought about how microwaves can conserve energy. She asked Miko if they could. Miko stretched and said, "Of course they conserve energy! Do not be so naïve Libby." Libby replied saying, "How do they conserve energy Miko?" Miko laughed and replied, "A microwave

"A microwave is an energy efficient alternative to an oven."

is an energy efficient alternative to an oven. The microwave cooks food quicker, and uses 70 to 80 percent less electricity!" Libby then said, "Wow Miko! I never knew that. You are so smart!" Miko sighed and said, "Come on lets go into the living room."

The cats sashayed into the living room, and came upon Ernie. Ernie was unscrewing their regular light bulbs, and putting in new fluorescent ones. Libby noticed Ernie putting in the old bulbs a couple of days ago. Libby mentioned this to Miko. Miko said, "New fluorescent bulbs replace the incandescent ones and save energy. Fluorescent bulbs are more expensive, but they can last 12 times longer and use 75 percent less electricity." Libby said, "Cool, the humans are conserving energy again! I did not realize that the regular bulbs could use that much electricity." Miko said, "Come on, let's go play with stuff in Megan's room, I hid a stash of string under her bed." The two cats strolled out of the living room into the hallway.

"New fluorescent bulbs replace the incandescent ones and save energy."

When the two cats emerged in the hallway, Libby looked on the wall and saw a small box with a red light blinking on it. Libby looked at Miko apprehensively. Miko looked at the wall and said, "That is a thermostat." Libby replied saying, "Oooo. Does that conserve energy too?" Miko looked down at Libby and said, "Yes, a thermostat does conserve energy. If you keep your thermostat at the lowest temperature comfortable for you, it will save humans heating costs." Libby smiled sheepishly and said, "Neat Miko." Miko smiled and said, "You have no idea." Libby and Miko then raced into Megan's room.

When they entered, Libby looked up and saw a huge spinning machine. She watched it for a while, and after a few seconds, she became very dizzy. Miko was already entangled in string. She looked like a giant fish caught in a fishing net. Miko said to Libby, "Why are you not playing?" Megan will be home any minute!" Libby's eyes were still gazed on the fan. Libby looked away and asked, "Miko what is that spinning thing?" Miko wiggled out of the maze of string and walked over to Libby. Miko looked up and said, "That is a ceiling fan." Libby said, "Cool, a ceiling fan. Does it conserve energy too?" Miko said, "Actually it does. Fans can make your air conditioner's job easier while saving humans money. Fans improve air circulation in your home, allowing you to raise the air conditioner's thermostat. Fans use only about one tenth the electricity of an air conditioner." Libby said, "Awesome, so fans help humans save money?" Miko replied saying, "Exactly. I am getting bored with this string, let's go up to the attic. There is some cool stuff we can get into and play with." The two cats excitedly raced out of the room back out to the hallway. Libby and Miko looked up into the attic. Dust was falling off the ceiling like snow, and the ladder was dusty. Miko said to Libby, "It is a long way up, but we can make it. Come on slow poke!" Miko jumped on the ladder and Libby followed.

"Fans improve air circulation in your home, allowing you to raise the air conditioner's thermostat."

When they entered the attic, Libby saw a sea of boxes piled on top of each other. Miko started to poke around, looking for toys to play with. Libby saw paper and fluff on the wall. She walked over to it, and batted the fluff. Miko stopped and looked at Libby. Miko said to Libby, "That is insulation." Libby then replied saying, "Insulation? What is that Miko?" Miko walked over to the wall that Libby was batting at and sat on a box. She said,

"Insulation is another way that humans conserve energy. Insulation in walls, ceilings and floors significantly reduces the loss of heat to the outdoors. Insulation will pay for itself in fuel-cost savings and home comfort." Libby said, "Wow Miko! I never knew that conserving energy is made right here in this house." Miko sniffed at the air and batted at dust. She then turned to Libby and said, "Come on, this place is dull. Lets go downstairs and I will teach you a couple of ways you can recycle and reuse products." The two cats darted down the stairs.

"Insulation in walls, ceilings, and floors significantly reduces the loss of heat to the outdoors."

When they reached the ground, Miko led Libby into the kitchen. Miko walked over to the recycling bin and sat down. Libby sat beside Miko. Miko turned to her and said, "Recycling is a big thing to humans. Reusing products inside and outside our home will save money and make our world cleaner." Libby nodded and asked, "What are some ways we can reuse recycled products?" Miko replied saying, "Well one way to give your old stuff a chance is to hold a yard sale. This way, humans will be able to use your old stuff, and they can make money." Libby said, "Neat, what other ways can you reuse your old recyclables?" "Well another way to reuse your old recyclables is to donate them to Goodwill or to Salvation Army. This way, people are able to save money, and use your recyclables again." Libby said, "Wow, any other ways?" "Another way is to put your recyclables in a blue bag and let the city pick them up and make them into other products." "Awesome Miko! I bet there are other ways too." Miko sighed and said, "There are probably hundreds, but I think that can wait for another day." "Okay Miko, can we talk in the living room? I am getting really sleepy." Libby yawned and the cats walked into the living room.

The two cats hopped onto the couch, and snuggled close. Libby looked up at the ceiling and she asked, "Miko, does conserving energy protect

the environment?" Miko yawned and said, "Of course it does. Conserving energy in human's homes and automobiles is the most important action humans can take to stop climate change. If humans did not conserve energy, our earth would be so trashy, and so disoriented." "Oh Miko, I have never thought of it that way." Libby stretched and asked, "Miko, how can our humans make our home environmentally safe?" Miko looked up at her and said, "Libby you are so talkative. Why do you want to know?" Libby looked at her and replied. "I do not know, I just have gotten caught in the whole moment. So please tell me, I am listening." Miko groaned and said, "Fine if you really want to know." Libby nodded sweetly. Miko said, "Well, one way humans can make their home environmentally safe is to ensure that their lights and heating are switched off when they leave their rooms. This will save resources for important uses." Miko put her head down and said, "Well, instead of using that wasteful cling wrap in the fridge, humans can use plastic containers. When they use containers, they eliminate wastes." Libby smacked her lips and closed her eyes. Miko sighed and said, "If humans start using glass cups instead of plastic ones, they will save money. Glass you can keep, plastic ones are wasteful." Libby looked up at Miko and said, "Miko, thanks for teaching me about how you can conserve energy and how to reuse recyclables." Libby closed her eyes and went to sleep. Miko said, "You're welcome." Then she sleepily put her head on Libby's stomach and fell asleep.

"Well, one way humans can make their home environmentally safe is to ensure that their lights and heating are switched off when they leave their rooms."

Richard M. Jefferies: A Powerful Man with a Powerful Idea

Nearly four decades have passed since Richard M. Jefferies died. The story of this extraordinary man, who had tremendous influence as not only one of the legislative founders of Santee Cooper, but as its chief executive for almost 21 years, is a compelling one.

He was much more than just a "power company man" or a long-time senator from Walterboro, where a street in the Colleton County seat is appropriately named for him.

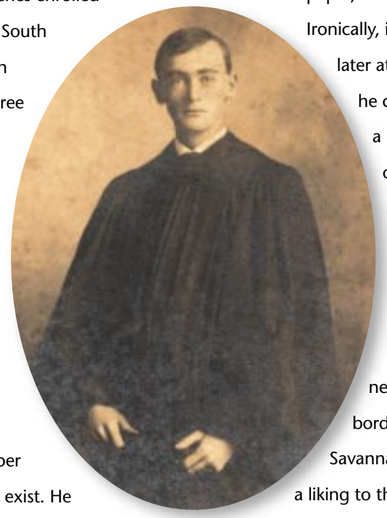
What can be discerned from dissecting the life and legacy of "Dick" Jefferies as his friends called him?

Former employees who worked with Jefferies remember him as a tough, demanding, but fair boss who laid critical groundwork for Santee Cooper's continuing success.

From Humble Beginnings

Richard Manning Jefferies was born in 1889 near Gaffney, S.C. and was the youngest of 11 children.

The young Jefferies enrolled at the University of South Carolina, earning an undergraduate degree in 1910. After graduating from USC, he found his way to Jasper County and took a position teaching school.



When Jefferies arrived in the Ridgeland area, Jasper County didn't even exist. He played a key role in forming the new county in 1912, among the last of the counties formed in South Carolina.

That same year, Jefferies was admitted to the bar. Under the tutelage of Judge James C. Peurifoy, Jefferies studied law. This was before a person had to graduate from an accredited law school to become a lawyer.

It soon became apparent to Jefferies that the new county needed a newspaper, so he founded one. Ironically, in his tenure years later at Santee Cooper, he came to despise a large number of newspapermen, and one Charleston columnist in particular.

Obviously, the new small county bordering the Savannah River took a liking to the man from the Upcountry. Jefferies soon became the county's first superintendent of education.

In 1913, Jefferies moved to Walterboro, not to practice law, but to renew his interest in newspapering. He became the editor and publisher of The Press and Standard, a weekly paper.

As occurred in Jasper County, Jefferies soon became a high-profile figure in Colleton County. His commitment to public service would soon advance far beyond being a school superintendent.

He served as master in equity and was elected probate judge until 1926, when he was elected state senator. Jefferies served eight consecutive terms. His father had also served in the Legislature and was a founding board member of Clemson University.

***Above**: Jefferies as young probate judge.*
***Right**: Jefferies in General Assembly chambers as a State Senator from Colleton County.*

Jefferies meets with President Franklin D. Roosevelt during a visit to Fort Jackson.

Early Supporter of Santee Cooper

After Jefferies became senator, the Great Depression hit and times were particularly tough in the Palmetto State. Always active in Democratic politics, Jefferies attended the 1932 Democratic National Convention that nominated Franklin D. Roosevelt for president.

At the Chicago convention, Jefferies attended a meeting with other state leaders. Roosevelt's advisors advocated a wide-ranging recovery program for the millions who were unemployed. It would become known as the "New Deal."

At this meeting it was suggested that the federal government embrace the idea of what would become the Santee Cooper Hydroelectric and Navigation Project. Until then, it had been envisioned as a private venture, but the Depression nixed that idea.

The project entailed damming the Santee River, forming what is today lakes Marion and Moultrie and connecting them by a nearly 8-mile long diversion canal. A powerhouse would be located on Lake Moultrie near Moncks Corner. A tailrace canal would discharge water from the lake into the Cooper River, which flows into Charleston Harbor. In addition to electricity, water-borne commerce between Charleston and Columbia was also a component of the project.

Jefferies strongly supported the Santee Cooper project. This public power enterprise was viewed as nicely dovetailing with an even bigger New Deal creation for the Southeast, the Tennessee Valley Authority.

On April 19, 1933, Jefferies introduced the first Santee Cooper bill in the Senate and shopped around for co-sponsors. Twenty-five senators joined him. The bill passed the upper chamber but narrowly missed passing in the House.

Jefferies was undeterred. He was one of six members of the General Assembly who were part of a 250-member statewide committee formed on Jan. 15, 1934.

GENERAL COUNSEL R.M. JEFFERIES AT OFFICIAL OPENING

They canvassed the state and drummed up support for the project.

On Feb. 1, 64 members of the group traveled to Washington on a special train to promote Santee Cooper to the Public Works Administration and the Works Progress Administration, centerpieces of President Roosevelt's recovery program.

The Washington trip ended with the realization that a state agency would have to be created in order for the federal government to appropriate funds to build the massive project. Not only was it going to be the largest New Deal project on the East Coast, it would be the biggest land-clearing and earth-moving project in the nation's history.

All this work, in which Jefferies was instrumental, soon paid off. The 1933 Senate bill was introduced in the House and soon passed. On April 7, 1934, Gov. Ibra C. Blackwood signed the bill that created the South Carolina Public Service Authority, whose purpose was to construct and operate the Santee Cooper Hydroelectric and Navigation Project.

The stage was thus set for Washington to fund the project. But in-state investor-owned utilities sued Santee Cooper in late 1935 to prevent the project from

***Right**: As general manager, Jefferies was present when construction began on the steam plant named in his honor.*

going forward. Jefferies, serving as general counsel for the newly created authority, led the lengthy court struggle to overturn the objections of these private power companies. The matter finally made its way to the U.S. Supreme Court, which decided in Santee Cooper's favor on May 23, 1938. The project could now go forward.

Gov. Jefferies and Then Santee Cooper's Top Man

As the only governor from Colleton County, Jefferies wasn't elected. The death of Gov. J.E. Harley in March 1942 elevated him to this position because he was president pro tempore of the Senate. Harley had become governor after Gov. Burnet R. Maybank, another Santee Cooper supporter, resigned his post following his election to the U.S. Senate. Jefferies served as governor until January 1943.

Jefferies' wife Annie

Jefferies was named Santee Cooper's general manager on Dec. 18, 1943, succeeding the utility's first general manager, Robert M. Cooper, who held the post from October 17, 1938 until his resignation, two days before Jefferies was named to the top post.

Jefferies took over Santee Cooper in the midst of World War II, when raw materials critical to any utility were in short supply. Following the end of the war in September 1945, things began getting back to normal and Santee Cooper began growing.

During Jefferies' nearly 21 years at the helm, 114 megawatts of new generation were added to Santee Cooper's energy mix. Santee Cooper evolved from a strictly

hydroelectric utility to one using coal and oil as a fuel source.

In 1949, a young electrical engineer named Clarence Gramling went to work for Santee Cooper. Gramling, who retired in 1985 and is a Moncks Corner resident, knew Jefferies quite well.

"Yes, he was a tough taskmaster, demanding, but fair," said Gramling, a Navy D-Day veteran. "He was one of the few people that I've met who you could feel in his presence a greatness or magnetism. He was a real smart fellow, always forward thinking. You didn't go see him with any half-baked ideas. You'd better know what you were talking about."

When first hired, Gramling worked in Myrtle Beach before being transferred to Moncks Corner. Jefferies would come to see him three or four times a year. On one occasion, the transmission line feeding Myrtle Beach went out of service. Instead of dismissing Gramling to go and check on the problem, Jefferies went along with him to get the line back in service.

Gramling recalls that Jefferies routinely liked to eat lunch at a boarding house located on Moncks Corner's Main Street, walking from Santee Cooper's Live Oak Drive headquarters, its home from 1955 to 1983.

"He liked to walk, and would often pause to admire flowers or shrubbery," said Gramling. "He was interested in horticulture and would regularly instruct workers on how to trim bushes and how to keep the main office grounds the way he wanted."

Jefferies had a wife, a son and daughter and continued to live in Walterboro. He'd usually leave Walterboro early on Monday mornings and be at work by 6 o'clock and would often stay late. He would be considered a workaholic. There's no doubt he loved Santee Cooper. During the work week, he would stay at Santee Cooper's Wampee Conference Center in Pinopolis, just outside Moncks Corner.

Gathered among political giants in the Statuary Hall of the U.S. Capitol in Washington were four ex governors of the state (left to right)—Judge Robert A. Cooper, Sen. Olin D. Johnston, Sen. Burnet R. Maybank and General Manager Richard M. Jefferies.

"If you had a meeting with Mr. Jefferies and he started flipping his pocket watch, you knew your time was up," Gramling recalled. "He also had a policy that employees had to live close to Moncks Corner, within 10 miles or so. He wanted employees to be nearby in case they were needed in an emergency."

Gramling says Jefferies' enduring legacy is that "he kept Santee Cooper going when it was really tough." He says the state's powerful investor-owned utilities were constantly trying to undermine Santee Cooper's ability to grow. Jefferies' political, business and legal background, combined with plain hard work, coalesced to assure the small utility's future.

"He was the right man at the right time," Gramling said.

Athalie Buckner, a 95-year-old Walterboro resident and longtime friend of the family, says Jefferies' lifelong achievements have been largely overlooked and overshadowed by such names as Strom Thurmond and Jimmy Byrnes.

"He and my father were close friends, and Mr. Jefferies was a very likable person," Buckner says. "He was always wanting to do something for the community. He was really a fine individual. I think he would be very pleased if he saw how Santee Cooper has grown."

"I remember Mr. Jefferies very well," says Santee Cooper President and CEO John H. Tiencken. "He always wore a dark suit and looked the part of someone who had accomplished much in life. My parents worked with Mr. Jefferies and thought a lot of him."

Tiencken has the copy of a resolution that reflects the loyalty and dedication of employees to Jefferies. "It was a resolution produced and signed by employees showing their support for him."

Richard M. Jefferies died on April 20, 1964, in Charleston's Roper Hospital, after a bout with influenza. He also battled emphysema, a condition not apparent to many of those around him.

Former U.S. Sen. Roger C. Peace summed up Jefferies' life succinctly: "Dick Jefferies, throughout his life, got up earlier than most people, he worked harder than most people and accomplished more than a great many of his contemporaries."

And how would Jefferies view the Santee Cooper of today, far beyond its hydroelectric beginnings and a provider of power flowing throughout the state?

"He would stand in awe," Gramling says.

Jefferies at his desk in the headquarters of the South Carolina Public Service Authority.

NewSource

Santee Cooper Refinances Portion of Debt, Helping Hold Down Costs and Rates

Focused on the changing economy and financial market conditions, the Santee Cooper Board of Directors voted May 23 to refund more than $350 million in revenue bonds and issue replacement bonds at lower rates.

The process will reduce long-term capital costs and help hold down rates for Santee Cooper customers.

The refunded bonds from the 1993 and 1995 issues totaling $352.135 million will be replaced with new bonds totaling $335.030 million at lower interest rates. The lower total payback of principal and interest over the life of the bonds will result in net present-value savings of $17.7 million.

"The process is much like refinancing your house," explained Elaine Peterson, senior vice president of administration and finance at the state-owned electric and water utility.

"When interest rates fall, it often makes good business sense to refinance. We'll be paying off higher-interest debt with the proceeds of the new bonds issued at a lower interest rate," she said.

Peterson said the yields on the new bonds range from 3.41 percent in 2015 to 4.55 percent in 2032 compared to yields ranging from 5.3 percent to 6.5 percent on the 1993 and 1995 bonds respectively.

"This accomplishment was achieved as a result of the detailed planning and daily monitoring of the bond markets by Santee Cooper's treasury staff with assistance from our underwriters," explains Santee Cooper Treasurer Rod Murchison.

"They develop plans that allow us to make a timely response as market conditions reach a desired target level where bond refinancing will pay off in significant savings."

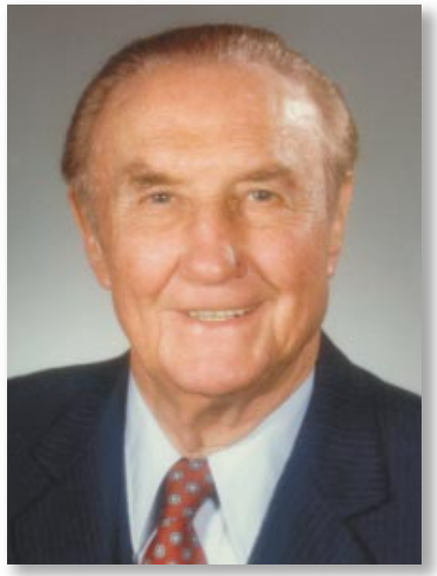
Refunding portions of its debt to save on lower interest costs has been a Santee Cooper practice for more than 25 years. Since 1977, Santee Cooper has issued more than $5.2 billion of refunding issues and in the process saved approximately $405.9 million in present-value dollars through lower interest payments, according to Murchison.

"When our board took action, interest rates were at a 53-year low and it was in the best interest of our customers to take advantage of current market conditions," Murchison said. "Any savings we realize with these transactions benefit our customers, and that is what's most important."

Santee Cooper operates from the revenues derived from the sale of electricity and water. The utility issues bonds from time to time to finance major projects such as generating facilities and other capital improvements.

Lest We Forget...

U.S. Sen. Strom Thurmond 1902–2003



The last Founding Father of Santee Cooper has passed. The death on June 26 of U.S. Sen. Strom Thurmond is particularly noteworthy from our perspective.

That's because the nation's longest serving U.S. senator was an untiring supporter of Santee Cooper throughout his life — even before Mr. Thurmond went to Washington.

On April 19, 1933, state Sen. Richard M. Jefferies (see related story) introduced a bill to create a self-financed, state-owned corporation, the South Carolina Public Service Authority. Its purpose was to construct and operate the proposed Santee Cooper Hydroelectric and Navigation Project. It was necessary to create a state agency in order to receive the federal funds for construction.

Thurmond was one of 25 state senators who co-sponsored Jefferies' legislation. The bill overwhelmingly passed the Senate but was defeated in the House.

On Jan. 15, 1934, a committee of the state's 250 leading citizens was formed to support the Santee Cooper project. Six members of the General Assembly were on this committee, including Thurmond and Jefferies.

The Senate version of Jefferies' bill was introduced in the House on Feb. 15, 1934, and on April 7, 1934, Gov. Ibra Blackwood signed the bill. Santee Cooper was born.

It was fitting that Thurmond, who was 81 years old at the time, made a speech during the 50th anniversary ceremonies held in April 1984 at the Moncks Corner corporate headquarters.

In South Carolina, our amazing recreation and low cost of living make us an attractive choice for business relocation and expansion. Whether people are looking for biotechnology resources in particular or general business capital, our highly trainable workforce and appreciation for local culture make transitions easy for those who'd like to either expand their business or move here.

Reasonable land costs, modest property tax rates and low power rates from Santee Cooper, the fourth largest public electric utility in the country, all allow newcomers to enjoy a lower than average cost of living.

South Carolina has quickly become the place for business relocations and expansions, so be sure to give a warm welcome to all the new arrivals. For more information, visit www.scprimesite.com.

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Dependable Power. Dependable People.